

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1, 3-4, 6-9 and 11-12 are amended to address the section 112-second paragraph rejections. No new matter has been added. Claims 13 and 14 were previously cancelled.

The Office Action

The only issues presented in the present Office Action are several indefiniteness rejections of the pending claims. Applicant's amendments shown above are believed to address the indefiniteness rejections.

Claims 1-2 are rejected by the PTO as being indefinite. Applicant addresses each rejection in the same order it appears in the Office Action.

Claim 1:

(i) Claim 1 is rejected for reciting the term "having." Pursuant to the PTO's suggestion, Applicant has amended the claim to replace the objected term with the term "of." The rejection has been overcome.

(ii) The PTO objects to the recitation of the limitation "...cycloalkyl groups containing 1 to..." stating that it is not possible to generate a 1-carbon cycloalkyl. The present amendments correct for this typographical error.

(iii) On page 7 the Office Action alleges that there is a valence problem when the alkyl is substituted with oxygen or nitrogen, as in the limitation for R6 and R7 in claim 1. A similar objection is being made on page 8 with respect to R⁸, R8, R, R2, R3, R4 and R5 in claim 1. The present amendment deletes oxygen as a substituent for "alkyl" in claim 1. Accordingly, the rejection has been overcome.

(iv) The PTO questions if the recitation of certain substituent groups for R6 and R7 would be clear to a person of ordinary skill in the art. Specifically, it is the PTO's position that it is not clear if these compounds are being recited as substituent groups for alkyl¹ in claim 1. Claim 1 is amended to make it amply clear that the recited compounds are being substituent groups for alkyl¹. Accordingly, the rejection has been overcome.

(v) The PTO alleges that it is unclear what the phrases "a pendant basic nitrogen functionality" and "a basic nitrogen functionality" mean. Thus, the PTO states that the use of these phrases renders the pending claims indefinite.

The recitation "a pendant basic nitrogen functionality" is not indefinite because its plain meaning can be ascertained by those ordinary skilled in the art in light of common usage in the field and ample exemplary compounds in the specification.

The term "pendant" refers to a moiety that is attached to the rest of the molecule by a single bond, e.g., the attached moiety is not a fused ring. The term "basic nitrogen functionality" refers to a moiety containing a nitrogen atom, wherein the nitrogen atom can be protonated. Thus, the nitrogen atom imparts to the moiety the property of being "basic". A person of ordinary skill in the field could thus readily determine whether a given moiety is a "pendant basic nitrogen functionality".

That a person of ordinary skill in the field would readily understand the term "pendant basic nitrogen functionality" - and that the term reflects common usage - is demonstrated by the following excerpts (with emphasis in bold and underlined).

The excerpts reflect the common usage of the term "pendant ... functionality" referring to a functional group within a moiety, and the common usage of "basic nitrogen functionality" to refer to a moiety having a basic nitrogen.

In U.S. Pat. 6,753,434, "As a further example, a poly(butadiene) having **pendant carboxylic acid functionality** can react with the hydroxyl functionality on either of the hydroxyl ..." (col. 3, lines 53-54).

In U.S. Pat. 4,470,859, “For perfluorocarbon copolymers having **pendant sulfonyl fluoride functionality**, crystallized PTFE-like material begins to appear in the copolymer at between ...” (col. 6, lines 28-29).

In U.S. Pat. 4,064,161, the title is “Polymers having a **pendant acrylate and methacrylate functionality**”.

In U.S. Pat. 5,126,370, “The first compound comprises a IIB/iiia specificity determinant, comprising a **basic nitrogen functionality**, which, for example, ...” (col. 4, line 54).

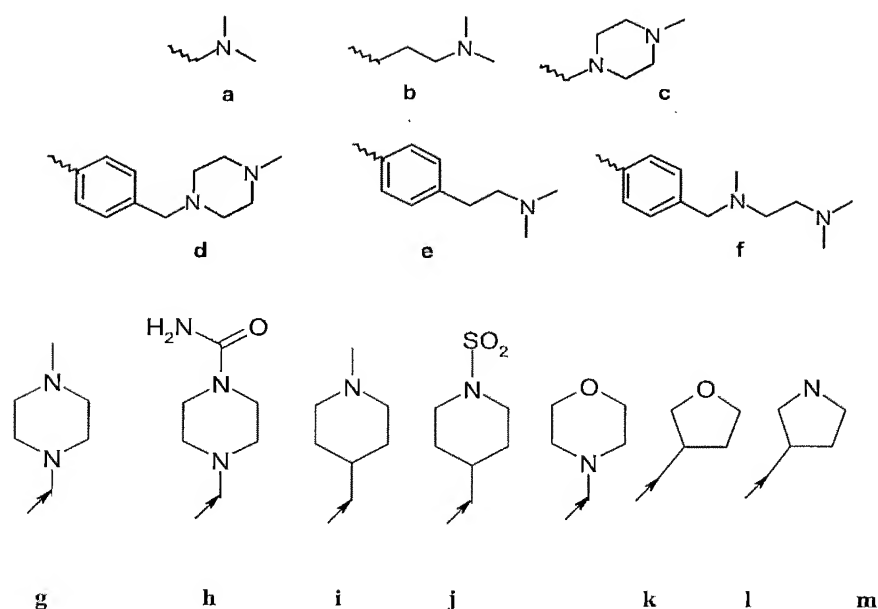
In U.S. Pat. 6,686,350, “It should be appreciated that when the R1 residue in D contains a **basic nitrogen functionality**, it must be used in a protected form and then deprotected ...” (col. 8, lines 16-17).

In U.S. Pat. 4,237,038, “... alpha,beta-ethylenically unsaturated the monomer containing **basic nitrogen functionality**...” (col. 1, line 21).

Moreover, according to the dictionary, the term “pendant” means hanging or suspended object (see <http://www.m-w.com/dictionary/pendant>). In the context of a molecule, “pendant” means the moiety is attached by a bond rather than, e.g., as a fused ring, to the remainder of the molecule.

Thus, in the case of a molecule, “**pendant basic nitrogen functionality**” means a side chain of variable length containing a basic nitrogen functionality. Basic nitrogen functionality is a functionality containing a nitrogen atom that can be protonated like piperazine, pyrrolidine, pyridine, amine, etc.

It can be for example one of the following structures described in the present patent application (see claim 4):



the wavy line and the arrow line corresponding to the point of attachment to the core of the molecule.

It appears from these examples that the basic nitrogen functionality is not necessarily bound directly to the rest of the molecule by the intermediate of the nitrogen atom. Moreover, it is obvious for a person skilled in the art that the terms “acid” or “base”, without any further information, mean acid or base in the sense of Brönsted. A nitrogen functionality in the sense of Brönsted is necessarily a group carrying a nitrogen atom bearing an electronic doublet to capture a proton. In this case, such a group is also a Lewis base. Accordingly, there is thus no ambiguity.

(vi) The PTO suggests amending definition (iv) of claim 1 to introduce the term “and” before the phrase quinolyl group and again introduce the term “and” between definitions (iv) and (v). Applicant has made the necessary amendments.

(vii) The PTO requests Applicant to correct the definitions for variable A, B, B' and W by replacing “0” with “O”. Applicant has made the necessary amendments.

(viii) The PTO requests Applicant to correct certain typographical errors in the definition for variable “W” in claim 1. The objected terms have been deleted.

(ix) The PTO requests Applicant to correct the definition for R¹, by deleting the “slash” in the recited limitation (a) and adding the term “or” between (b) and (c). The present amendments address the PTO’s concern and thus the rejection is overcome.

Claims 3 & 7:

(i) Claim 3 is rejected as indefinite because the definition for variable “X” lacks antecedent basis. Claim 3 is also rejected for lack of antecedent basis for the definition of “R” and the recitation that R², R³, R⁴, and R⁵ are halogens. Claim 3 is amended to independent format. Thus, the rejection has been addressed.

(ii) The PTO suggests replacing the phrase “that has” in claims 3 and 7 with the term “of”. These claims have been amended as suggested by the Office. Thus, the rejection has been addressed.

(iii) The PTO suggests amending claim 3 to recite R², R³, R⁴ and R⁵ instead of substituent groups R², R³, R⁴, and R⁵. The claims have been amended as suggested by the Office. Thus, the rejection has been addressed.

(iv) The PTO objects to the term “aryl” as lacking antecedent basis. The objected term has been deleted. Thus, the rejection has been addressed by the Applicant.

(v) The PTO suggests amending claims 3 and 7 to recite R⁶ in place of “R⁶”. The appropriate amendment has been made.

(vi) The PTO alleges that the term “halogen” in the definition (iii) for R⁶ lacks antecedent basis. Claim 3 is amended to an independent format. Thus, the rejection has been overcome.

(vii) The PTO requires the period at the end of definition (iii) and the slash on line 4 of definition (iv) of claim 3 to be deleted. The PTO further suggest adding the term “or” before definition (iv) for R⁶ in claim 3. The present amendments address these issues. Thus, the rejection is overcome.

(viii) The PTO suggests replacing “N02 or S02-R” in definition (iv) of claim 3 with the terms “NO2 and SO2-R.” The PTO further alleges that the term “SO2-R in claims 3 and 7 lacks antecedent basis. Definition (iv) in claim 3 is deleted. Claim 7 is amended to an independent format. Thus, the rejection is overcome.

Claims 4 and 6 are rejected for lack of antecedent basis over the terms “X” and “formula II”. Both claims are amended to provide the requisite antecedent basis. Thus, the rejection is overcome.

Claim 7:

Claim 7 is rejected for missing the conjunction “and” in the recitation of Ra – Re. The present amendment corrects for this typographical error.

The PTO requests Applicant to correct certain typographical errors in claim 7. These include:

- (a) the terms “ailcyl”, “-C0-NRR”, “-S02-R”;
- (b) the recitation of “/or” in the and/or terms; and
- (c) for reciting different definitions for variable R.

The present amendments to claim 7 address these concerns. For example, the term “ailcyl” is replaced with “alkyl”; terms “-C0-NRR”, “-S02-R” are replaced by “-CO-NRR” and “-SO2-R” respectively. The “/or” term is deleted and the R groups have been renumbered.

The PTO points to a typographical error in the chemical name of a compound recited by claim 8. The requisite amendment has been made to correct for this error.

CONCLUSION

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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